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Résumé

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CENTRAL ASIA AND KASHMIR AN APPRAISAL OF PAST AND PRESENT LINKS

G.M. BUTH, Irshad A. NAVCHOO and ASTI NAVAYAN (*)

Résumé. — L'auteur entend montrer les liens floristiques entre la vallée du Cachemire et l'Asie centrale. Deux points sont particulièrement soulignés :

- 1) Les liens archéobotaniques entre ces deux régions (nombreuses trouvailles archéologiques indiennes au Cachemire analysées)
- 2) Les affinités entre la présente flore du Cachemire himalayen et celle de l'Asie centrale.

Abstract. — The author intends to show the floral relationships between the Kashmir Valley and Central Asia. Two points in particular are emphasized:

- 1) The archeobotanic relationship between these 2 regions (several archaeological Indian findings in Kashmir are analyzed).
- 2) The affinities between present flora of Himalayan Kashmir and those of Central Asia.

INTRODUCTION

The very location of Kashmir in Central Asia (Fig. 1) helps it to secure elements from various cultures of various countries falling in Central Asia ranging from neolithic (the earliest known culture of Kashmir) to the medieval times. The interaction between the two areas resulted in a culture compound of its own type at the various stages of human development.

The two regions not only share the socio-cultural traditions but also have phyto-geographical relations too. In protohistoric times, as mentioned in the Nilamatapuran and Rajatarangini, there lived in the valley of Kashmir tribes called Nagas, Pisacas and Yakasas who used to go in summer, towards Tibet and Central Asia and return to the valley in winter (STEIN, 1961).

The socio-cultural and commercial relations of the two regions continued to exist until modern times and were shaped only recently (AHMAD, 1986).

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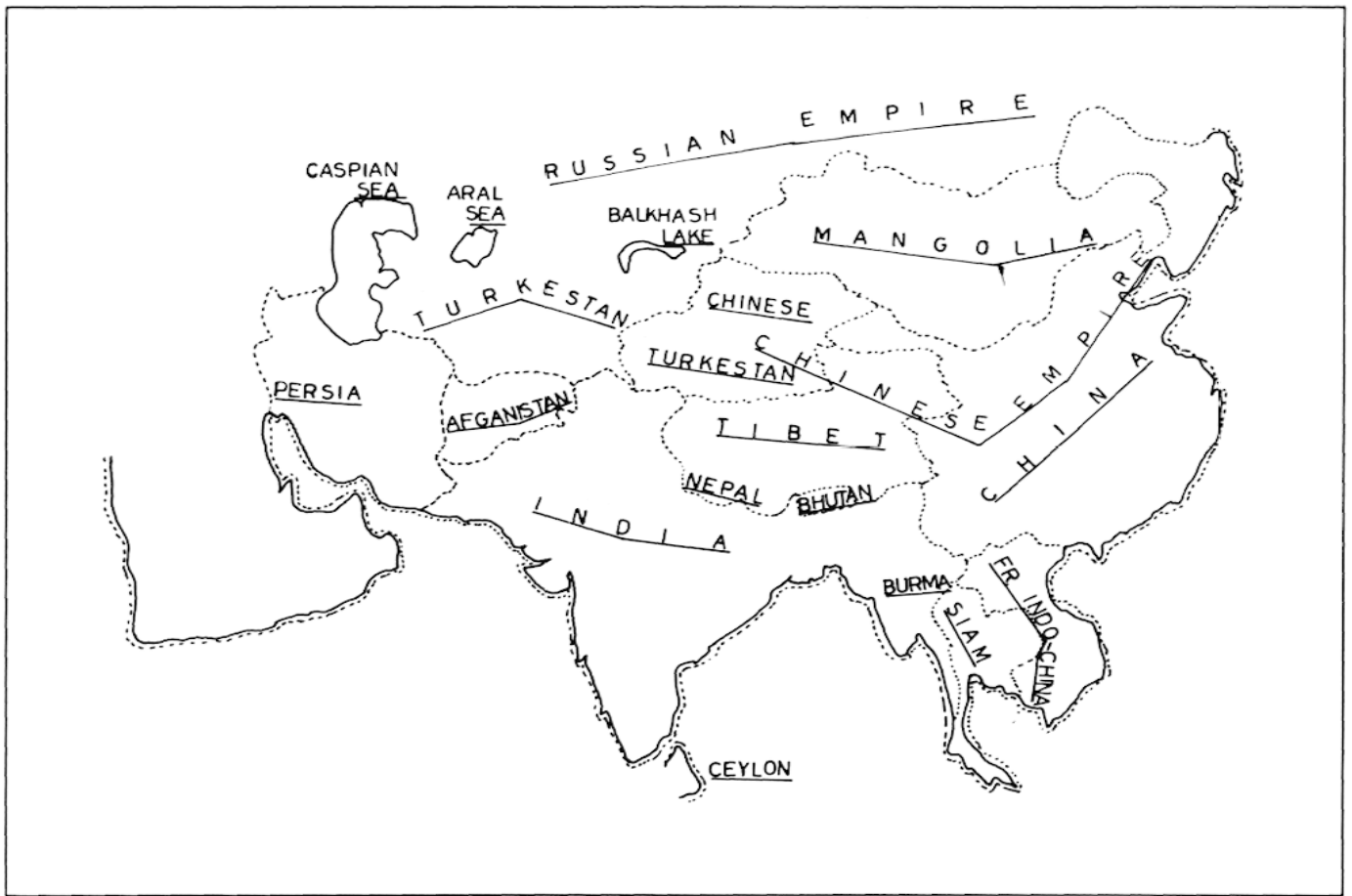


FIG. 1. — Central Asia (Then).

ANCIENT ROUTES

An important factor linking the two regions is the gradual growth of land routes. These roads carved out by men since pre-historic times connecting Central Asia with Kashmir and other parts of the subcontinent, played an important role in the dissemination of one's people culture to the other. Kashmir was a junction where all the ancient trade routes connecting various countries of central Asia were meeting together. The important being the one called "Silk route" (Fig. 2) which connected India with Central Asia via Kashmir and used by caravans which brought Silk from China to Persia and to the levantine market (YONG, 1984). When the silk Road first opened the trade was probably carried mainly by the diplomatic envoys of China and the countries of Central Asia. Later, however, it became the monopoly of merchants of Sogdia, Kushan and Parthia and various missions from eastern shores of the Mediterranean across the Middle-east, Bactria, Samarkand, India, the Central Asia region to China (YONG, 1984). On account of political relations of Kashmir with Central Asia a continuous influx of people kept moving either way. This is the reason why we find Kashmiri settlements in Kotan, Kucha and other important towns of Central Asia well before the advent of Buddhism in Kashmir (SHALI, 1986).

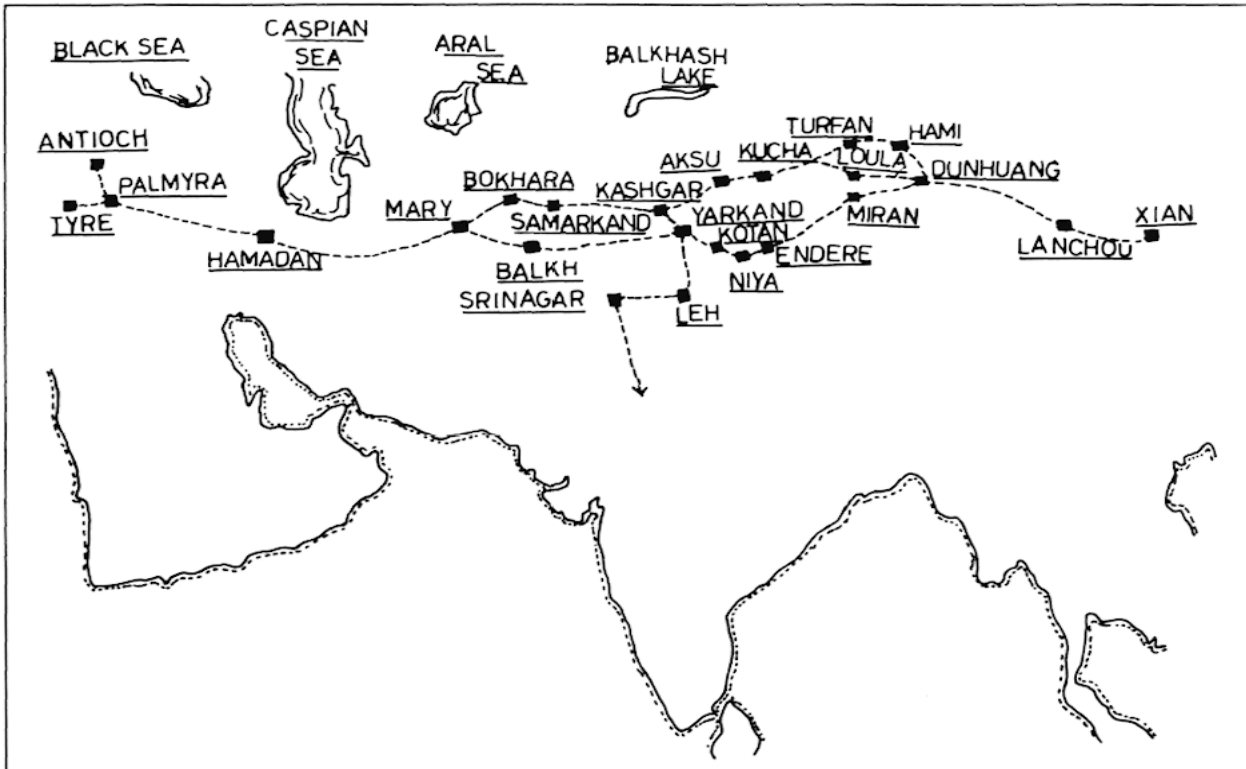


FIG. 2. — Silk route with adjoining route to Kashmir via Leh.

Kashmir was also connected to Central Asia by three other routes.

I. Via Baramulla and Muzaffarabad (Fig. 3) an ancient road through which many missionaries and travellers entered the valley (SHALI, 1986). II. The other road that passed from the valley to Central Asia, was via Gilgat and Chitral, and lastly, the third important road that connected the valley with Tibet and Sinkiang, was the one that passed through Leh and Karako run mountains. This was the most traversed road untill modern times. The last caravan that entered Kashmir from Sinkiang was in 1956 (AHMAD, 1986). It is thought that through route I, which closely followed the course river Jhelum, the western Gate of Kashmir, the Chinese Pilgrims Hsüan-tsang and Fa-hsien entered the valley (SHALI, 1986). The latter route, crossing over the Zojila leads into Leh and then to Tibet, thence to Yarkand and other parts of the Central Asia, was followed by Great adventures like Rinchana (14th century) and Mirza Haider Douglat (16th century) (SHALI, 1986).

ARCHAEOLOGICAL LINKS

About 26 neolithic sites have been reported from the valley, of these Burzahom and Gufkral have been studied in detail. Neolithic culture is the earliest known culture of the valley and many traits of this have their parallels on sites in Central and Northern China as well as on Soviet Central Asia (SHALI, 1986 : BISHT, 1986).

At Burzahom, the structural similarity is marked by the presence of dwelling pits, oval, rectangular or square in plan, provided with postholes (made of *Pinus*) for

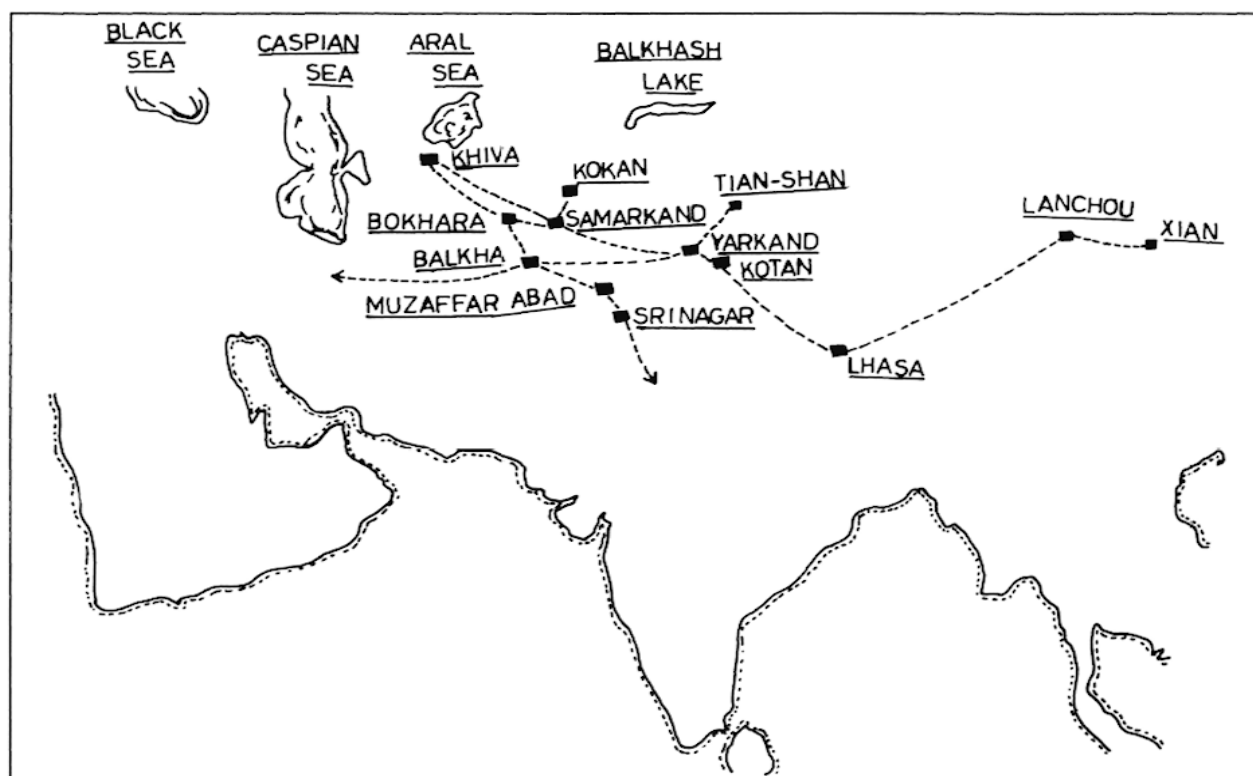


FIG. 3. — Kashmir to central Asia via Muzaffar Abad and Balkha.

supporting the superstructure to cover these houses with birch bark (*Betula* sp.), reeds and hides. The presence of handmade pottery, use of polished tools are represented by axes, Siing balls, mace heads, hoes, pestles, etc. The most significant and unique collection is that of bone tools consisting of needles with or without eyes, awls, pins, arrow heads, daggers, perforated harvesters etc. (BISHT, 1986), BUTH AND KAW, 1985).

Evidence of structural remains at Gufkral are either similar to those found at Burzahom or unique, to the site (SHARMA, 1982, 1986).

Certain tool types, notably harvester, use of bone implements and the practice of pit dwellings are elements quite familiar with neolithic cultures of east. The implement termed as harvester in the neolithic assemblage of Burzahom is also common in the neolithic periods of China and Central Asia (SHALI, 1986). The associated objects, however, are different. The typological similarity of such a specialized tool anticipates cultural connection between two regions. In a way, the Burzohom Neolithic is but an organic extension of the semi-isolated character of the Kashmir valley both in palaeolithic as well as the Neolithic, linking it more adventiously to tracts of Central Asia, China and the rest.

The findings of Bara type pottery (Post-Harappan) at Semthan (Kashmir) is certainly important. Prior to these excavations, it was thought that the history of Kashmir goes only upto Kushan period barring Neolithic culture of Burzahom. The pre-Harappan contact with Neolithic people of Burzahom reveals that may be, by the end of period-III of Burzahom when their culture must have gone to a great extent of transformation they may have moved to Semthan carrying with them traits from Neolithic and pre-Harappan (Bara) cultures (BUTH, *et al.*, 1982).

Further settlements have been found at Kanishpur near Baramulla and Huin, a village 8 km below Lar in Sindh valley. Both these sites are of Historical importance as they fall on two important routes i.e. Former on Barmulla Muzaffarabad road and latter on Srinagar Leh road, which connected Kashmir with Central Asia (SHALI, 1986).

ARCHEOBOTANICAL LINKS

The plant material recovered from these sites indicate high frequency of dwarf wheat in all the phases. Dwarf wheat is particularly interesting in Central Asian context. With migration into new areas, the bread wheat (*T. aestivum*) encountered new environment to which it responded with bursts of variation (FELDMAN, 1976) and gave rise to *T. compactum* in the Near East and Europe and *T. sphaerococcum* in Central Asia. According to ELLERTON (1939) *T. sphaerococcum* arose through the deletion of small blocks of genes of *T. aestivum*. RAO (1974) also points out that the Northwest of Indian subcontinent is a major centre of diversity of *T. sphaerococcum*.

Similarly millets e.g. *Panicum* sp. and *Setaria* sp. which originated in Northern China make their appearance in various phases of protohistoric site of Semthan (BUTH *et al.*, 1982).

The horticultural crop remains (nuts and endocarp) of Cherries, pears, apricots, walnuts have been found in various phases in the above sites from neolithic to Buddhist, Indogreek and Kushan periods. The earliest records are *Amygdalus communis*, *P. persica*, *Juglans regia* from Burzahom (2325-1500 B.C.); *Prunus cerasus*, *P. persica*, *P. armeniaca* and *Juglans regia* have been recorded from Semthan (1500 B.C.); the record of *Prunus armeniaca* is the only of its kind from Gufkral (1000 B.C). (KHAN, 1986; LONE, 1986; and SHARMA, 1982; BISHT, 1986; BUTH & KAW, 1985; BUTH, *et al.*, 1982).

China occupies first place in the wealth of fruit species of *Pyrus*, *Malus* and *Prunus* (VAVILOV, 1926). It is probable that these fruits have been introduced in the valley from central Asia by the earliest people who came to be settled in different parts of Northern India including Kashmir.

From these findings, cultural contact, waves of migration from Central Asia and Mediterranean to Kashmir is envisaged.

FLORISTIC LINKS

A. — General Flora

Kashmir Himalayan flora, in general reveals greater affinities with that of the Central Asia than any other floristic province of Irano-Turanian region. Amongst the largest represented families in Kashmir Himalaya, Brassicaceae, Polygonaceae,

Rosaceae, Caryophyllaceae, Lamiaceae show more than 25% of the taxa which are common to Central Asia. An analysis of the extent of this relationship amongst some natural orders is tabulated and discussed (Table I).

TABLE I

S. No. Family	No. of taxa in Kashmir	Common with Central Asia	% age of Common taxa
1. AMARANTACEAE	11	6	54.5
2. ONAGRACEAE	28	12	42.8
3. ALLIACEAE	15	6	40.0
4. BRASSICACEAE	170	61	35.8
5. ROSACEAE	90	29	32.2
6. POLYGONACEAE	65	20	30.7
7. LAMIACEAE	85	24	28.2
8. CARYOPHYLLACEAE	77	19	24.6
9. BALSAMINACEAE	12	2	16.6
10. DIPSACEAE	6	1	16.6

From the data it is clear that apart from Amaranthaceae and Onagraceae which both show a high percentage of common taxa, economically important families like Alliaceae, Brassicaceae, Rosaceae and Polygonaceae also show a high percentage of common taxa.

Among economically important genera *Brassica* and *Prunus* show 5 species common to both areas. The other important plants which are cultivated in both areas are *Sorghum bicolor*, *Triticum aestivum*, *Allium cepa*, *A. sativa*, *Amaranthus caudatus*, *Gomphrena globosa* and *Celosia argentea*, etc.

Apart from this, maximum species diversity has been seen to occur in Central Asia as is evident from Genera like *Geranium* represented by 55 species in Central Asia while 21 are reported from Kashmir; *Lycopus* with 7 species in Central Asia and only 1 in Kashmir.

B. — Crops

Central Asia was one of the probable centres of origin of cultivated plants proposed by Vavilov (1926). It was drawn so as to include northwest India, (Punjab, North Western frontier province, Kashmir) all of Afghanistan, Soviet republics of Tadjikistan and Uzbekistan and Western Tian-shan. The importance of the centre is that it is the birth place of shot wheat.

Among the large number of crops in Kashmir quite a few have been introduced from Central Asia. These can be grouped as:

a. Grain crops

Triticum vulgare, *Pisum sativum*, *Vicia faba*, *Lathyrus sativa*, *Phaseolus aureus*, *P. mungo*, *Brassica campestris*, *B. juncea*, *Linum usitatissimum*, *Coriandrum sativum* etc.

b. Vegetables

Daucus carrota, *Raphanus sativus*, *Allium cepa*, *A. sativum*, *Spinacia oleracea*, *Portulaca oleracea*.

c. Fruits

Prunus armeniaca, *Pyrus communis*, *Amygdalus communis*, *Vitis vinifera*, *Juglans regia*, *Malus pumila*.

d. Weeds

Studies on the weed elements, this distribution association with various crops, wastelands etc. of the Kashmir valley, reveal a close relationship in habit and habitat of the two regions. About a hundred species of weeds associated with different crops are common to both areas revealing close affinities between the two areas.

Some of the weeds species associated with rice, wheat, and Orchards, common to both areas are listed as:

● **Rice fields:** *Rorripa sylvestris*, *R. islandica*; *Nasturtium officinale*; *Polygonum hydropiper*, *Prunella vulgaris*, *Ammania auriculata*, *A. baccifera*, *Lythrum salicaria*, *Digitaria sanguinalis*, *Echinochloa colonum*, *E. crusgali*, *Setaria glauca*, *S. viridis*, *Carex nubigena*, *C. parava*, *C. nivalis*,

● **Wheat fields:** *Amaranthus spinosum*, *Epilobium hirsutum*, *Polygonum nepalense*, *Midicago polymorpha* *M. minima*, *Sorghum halepense*, *Vulpia myuros*, *Bothriochloa ischaemum*.

● **Orchards :** *Oenothera glazioviana*, *O. rosea*, *Amaranthus caudatus*, *Erophila verna*, *Capsella bursa-pastoris*, *Lotus corniculatus*, *Erodium cicutarium*, *Poa annua*, *P. bulbosa*, *Fumaria indica* *Oxalis corniculata*, *Carpesium cernuum*.

It is probable that these weed species got introduced in the Kashmir valley along with the earliest crops and fruits that were introduced into the valley from Central Asia and subsequently got established as weeds of different habitations.

CONCLUSION

The intimate associations between Central Asia and Kashmir are often considered as recent, but it is clear that links between two regions are pre-historic. People, ideas and cultures came from the northwest Passes and contributed their mite to the Kashmir culture. The neolithic settlements (3 million B.C.) in Kashmir and Kazakhstan (Central Asia) in our adjoining regions brought forth the idea of monumental of integrated neolithic culture from Northchina to Kashmir. We talk of silk route, but even before 3 200 B.C. extensive trade routes linked Baluchistan with eastern Iran and Central Asia (Turkiministan). Thus facilitating exchange of goods and ideas. The two

regions show great cultural similarities. The phytogeographic relations and similarities are great. These have led VAVILOV (1926) to remark the uniform ecological conditions and the uniform wild and cultivated floras of Punjab, Kashmir and eastern part of Soviet Central Asia necessitate regarding these regions as one centre.

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